

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (Currently amended): A plasma etching apparatus comprising:

a processing chamber in which a plasma etching process is performed;

a monitoring window of transparent material, said monitoring window being disposed in a side wall of said processing chamber, and said monitoring window having a flute at an inner surface thereof that faces the interior of said processing chamber;

a heater positioned relative to said monitoring window so as to provide heat that is more concentrated at a portion of the monitoring window provided with the flute of said monitoring window than at the other portions of the monitoring window; and

an optical detector mounted outside said processing chamber and in alignment with the flute of said monitoring window so as to detect a change in the process occurring in said chamber via the flute.

Claim 2 (Currently amended): ~~The~~ A plasma etching apparatus of claim 1,
comprising:

a processing chamber in which a plasma etching process is performed;

a monitoring window of transparent material, said monitoring window being

disposed in a side wall of said processing chamber, wherein a portion of the monitoring window corresponding to the end point detector is extended to an outer side of the chamber at an outer side of the processing chamber extending in a direction away from the interior of the processing chamber to thus form a protrusion, and said monitoring window having a flute at an inner surface thereof that faces the interior of said processing chamber, the flute being aligned with said protrusion in the direction in which the protrusion extends;

and the a heater is equipped centered about the protrusion to provide heat to the protrusion and a at the circumference thereof and thereby direct heat towards a portion of the monitoring window provided with the flute;

an optical detector mounted outside said processing chamber and in alignment with the flute of the monitoring window via said protrusion so as to detect a change in the process occurring in said chamber via the flute.

Claim 3 (Currently amended): The apparatus of claim + 2, wherein the window has an outer surface that is substantially parallel to the inner surface thereof, the protrusion is a solid portion of the window extending from a central portion of the outer surface so as to have an inner end that terminates at the outer surface, and an outer end that is more remote from the interior of the processing chamber than the inner end, and the bottom of the flute extends to an is located no deeper in the window than the inner end of the protrusion.

Claim 4 (Original): The apparatus of claim 1, and further comprising polymer attracting means for attracting polymer within the processing chamber.

Claim 5 (Original): The apparatus of claim 4, wherein the polymer attracting means is disposed beside of beneath said monitoring window.

Claim 6 (Original): The apparatus of claim 4, wherein the polymer attracting means is an electrostatic device that generates an electrostatic force in response to an applied control signal.

Claim 7 (Original): The apparatus of claim 4, wherein the polymer attracting device is a cooling device.